ABSTRACT

A restraint system for a vehicle comprises a weight-sensing unit mounted to one or more seats and positioned between the seat mounting frame and the floor means of the vehicle for sensing the weight of a sitting occupant and for classifying the occupant accordingly, a computerized system for calculating an operating weight value corresponding to the classified weight value, and an airbag system comprising one or more airbags and a deployment unit configured to inflate the airbags with a deployment force and acceleration that is proportionate to the operating weight value when a sufficient collision force is sensed above a predetermined collision force value by a collision sensor.